

*Masahiria glabra* sp. nov., gen. nov. (Erotylidae, Erotylinae, Dacnini)  
from New Caledonia

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**Abstract** A new genus and species, *Masahiria glabra* (Erotylidae, Erotylinae, Dacnini), is described from New Caledonia.

### Introduction

Hitherto only 14 species of Erotylidae have been recorded from New Caledonia, belonging to 2 subfamilies (Erotylinae and Xenoscelinae) (sensu WĘGRZYNOWICZ, 2002), and 4 genera. Almost all species are endemic, except for *Episcaphula australis* BOISDUVAL, which is widely distributed, recorded also from Australia and the major part of the Australo-Pacific Region (CHÛJÔ & CHÛJÔ, 1998).

Among rich unidentified material of the Erotylidae preserved in the Zoological Department of the Hungarian Natural History Museum in Budapest, I have found a single female specimen from New Caledonia. This completely flightless new species also represents a new genus, belonging to the tribe Dacnini. Detailed descriptions and illustrations are given below.

### Methods

For dissection, the dry specimen was relaxed in hot water, and the whole abdomen and mouthparts were removed. For clearing, the genitalia and mouthparts were boiled for a few minutes in water, then placed in a cold 10% solution of KOH. Cleared objects were washed in distilled water and stained for 10 minutes in a mixture of glycerine and chlorazol black. Then they were again washed in water and transferred into a drop of glycerine on a glass slide. Mouthparts and genitalia were placed into a plastic microvial for permanent storage, and stuck through the cork onto the entomological pin together with the holotype specimen.

Morphological terminology follows WĘGRZYNOWICZ (2002).

The measurements were taken as follows. Body length was measured in top view, from the top of the clypeus to the apex of the elytra; the head length was from the top of the clypeus to the anterior margin of the pronotum (considering the natural degree

of head withdrawal into the pronotum); the rostrum length was from the top of the clypeus to the hypothetical line connecting the anterior margins of the eyes; the pronotum length was the maximum distance between its anterior and posterior margins, at the same level; the elytra length was the maximum distance between its base and apex, at the same level. The following abbreviations are used: BL = body length, BW = body width, HL = head length, HW = head width, HEW = minimal distance between eyes, RL = rostrum length, PL = pronotum length; PMW = maximum pronotum width, PBW = pronotum base width, PAW = pronotum anterior margin width, EL = elytra length, EW = elytra maximum width, EAW = elytra anterior margin width, AL = antenna length, CL = antennal club length, CW = antennal club width,  $AL_{I-XI}$  — = respective length of antennomeres I–XI. Successive antennomeres, tarsomeres etc. are designated by Roman numerals. All measurements are included in the Table 1.

***Masahiria* gen. nov.**

*Type species: Masahiria glabra* sp. nov.

*Name derivation.* The genus is named for my friend Dr. Masahiro ÔHARA from Hokkaido University, Sapporo.

*Name gender.* Feminine.

*Diagnosis.* Easily recognizable by the following set of characters: body nearly oviform, wingless; elytra irregularly punctured, without trace of regular rows of punctures; humeral protuberances absent; mesosternum completely covered by prosternum, hidden; pro- and metasternum touching one another; denticulate lamellae on female genital segments present. The new genus is closest to the Australo-Pacific genus *Thal-lis*, but is unique in body shape and structure of thorax.

*Description.* Body nearly oviform, dorsal side distinctly convex and glossy, almost hairless (Fig. 1).

Head (Figs. 1, 3, 4) very large compared to rest of body. Labrum connected to clypeus by wide, well visible membrane. Fronto-clypeal suture hardly visible, but complete, straight in middle, lateral fragments anterad. Rostrum wide, moderately short. Eyes small, almost oval, distinctly protruding from head outline, with large ommatidia; distinctly bordered by deep grooves, which in front reach bases of antenna, and behind continue straight backwards. Stridulatory files absent. Submentum very short and wide, strongly transverse; groove behind submentum with large, deep punctures. Mentum transverse, with median tooth and depression in center. Last joint of maxillary palpi elongate, somewhat narrow at apex (Fig. 6). Last joint of labial palpi wide, wider than previous ones (Fig. 7).

Antennae (Fig. 9) 11-jointed, relatively long, very slender, including club. Antennomere III moderately elongate, very little longer than IV. Club 3-jointed, narrow, feebly flattened, loose.

Pronotum (Fig. 8) strongly convex, much wider than long. Lateral margins gently arched, convergent anteriorly, so that the base of pronotum is clearly wider than ante-

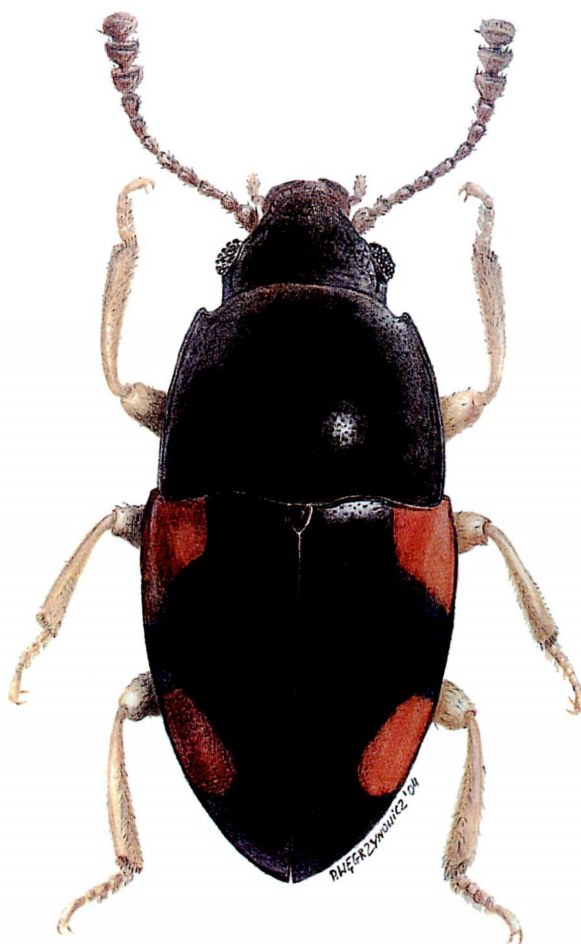
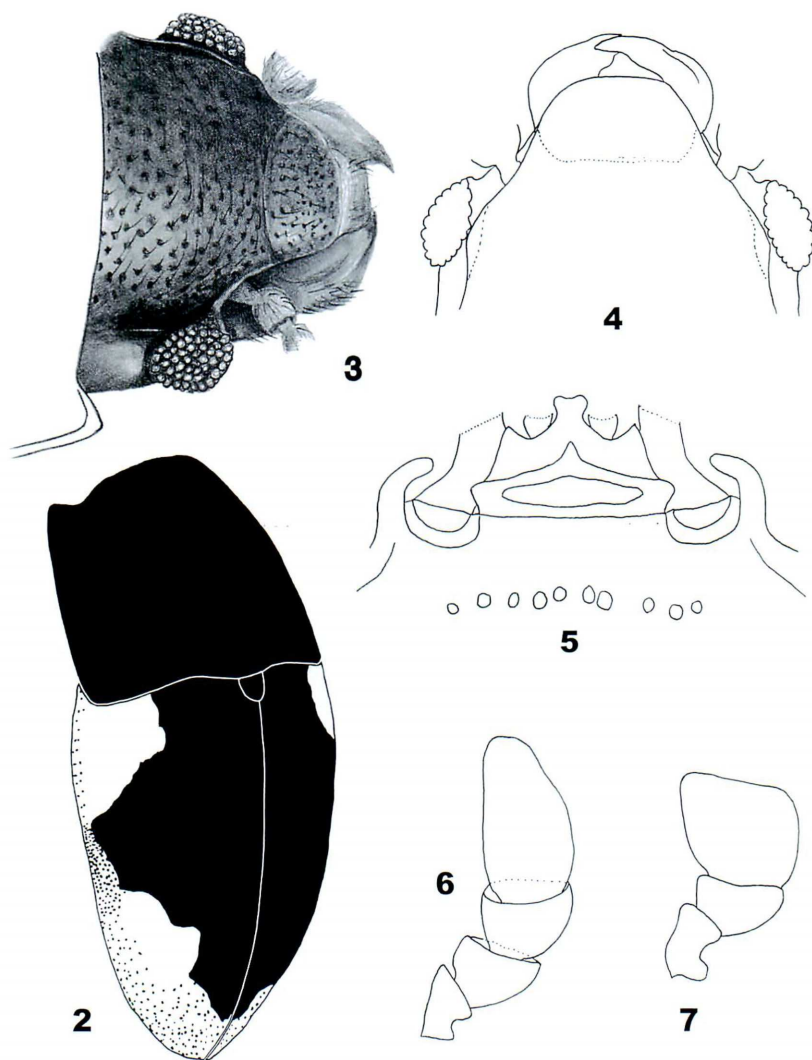


Fig. 1. *Masahiria glabra* sp. nov., holotype habitus.

rior margin, narrowly but clearly bordered, each border with eight very small, hardly visible gland openings. Anterior angles distinctly protruding anteriorly, acute. Posterior margin of pronotum sinuate, not bordered; posterior angles blunt, rounded, fitting to emarginations in bases of elytra.

Elytra (Fig. 1) short, strongly but evenly narrowing rearwards, with almost regularly arched lateral margins. Surface irregularly punctured, without trace of regular rows of punctures. Elytral bases not bordered, deeply emarginate, fitting to base of pronotum. Humeral protuberances absent. Elytral apices rounded together. Epipleura (Fig. 13) wide at the base, evenly narrowing to apex, densely hirsute with short and decumbent bristles, and very densely punctured.



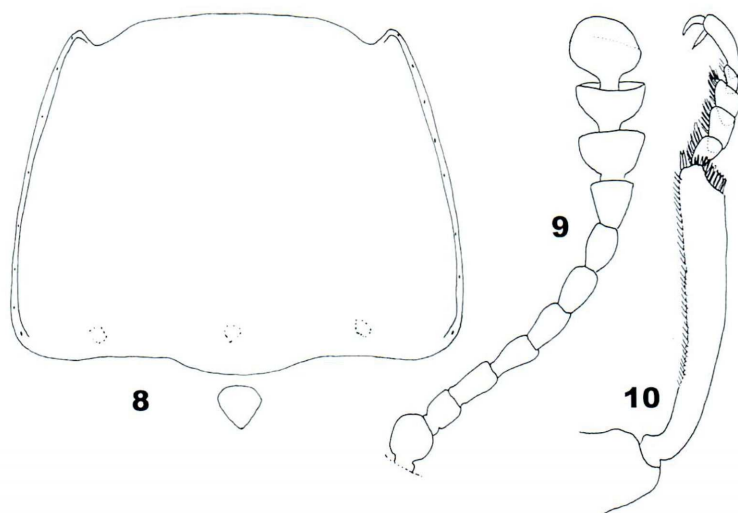


Figs. 2–7. *Masahiria glabra* sp. nov.; 2, pronotum and elytra colouration, at an angle; 3, head, at an angle; 4, head, dorsal view; 5, submentum and mentum; 6, maxillary palpus; 7, labial palpus.

Wings strongly reduced, belt-like, without trace of venation.

Legs (Figs. 1, 10) long and slender, densely hirsute. Femora fusiform, somewhat flattened, with two sharp edges on inner surface. Tibiae slender, a little curved. Apex of femur with crown of flat setulae, and pair of short spurs close to one another. Tarsi elongate, cylindrical, tarsomeres I–III more or less of the same size, tarsomere IV much shorter, V the longest.

Prosternum (Figs. 11, 12) long, the longest thoracic segment. Anterior margin of



Figs. 8–10. *Masahiria glabra* sp. nov.; 8, pronotum and scutellum; 9, antenna; 10, anterior leg.

prosternum bordered with deep furrow, and with numerous, small denticles. Pro-femoral lines absent. Anterior margins of prosternal cavities not bordered. Prosternal process wide, strongly widened posteriorly, with sharp denticle in middle of posterior margin, and with posterior angles acute and directed to procoxae; prosternal process with two round and deep depressions near not bordered, posterior margin. Pores on prosternal process absent.

Mesosternum (Fig. 13) completely covered by prosternum, hidden, pro- and metasternum touching one another.

Metasternum (Fig. 13) short; anterior margin distinctly bordered; posterior margin with triangular emargination in middle. Median suture absent. Mesofemoral lines absent. Metepisterna very narrow.

Abdomen (Fig. 14). Anterior margin of ventrite I behind metacoxae distinctly bordered, process of ventrite I between metacoxae wide and long, widely rounded at apex, unbordered. Metafemoral lines on ventrite I absent. Ventrite V somewhat acute.

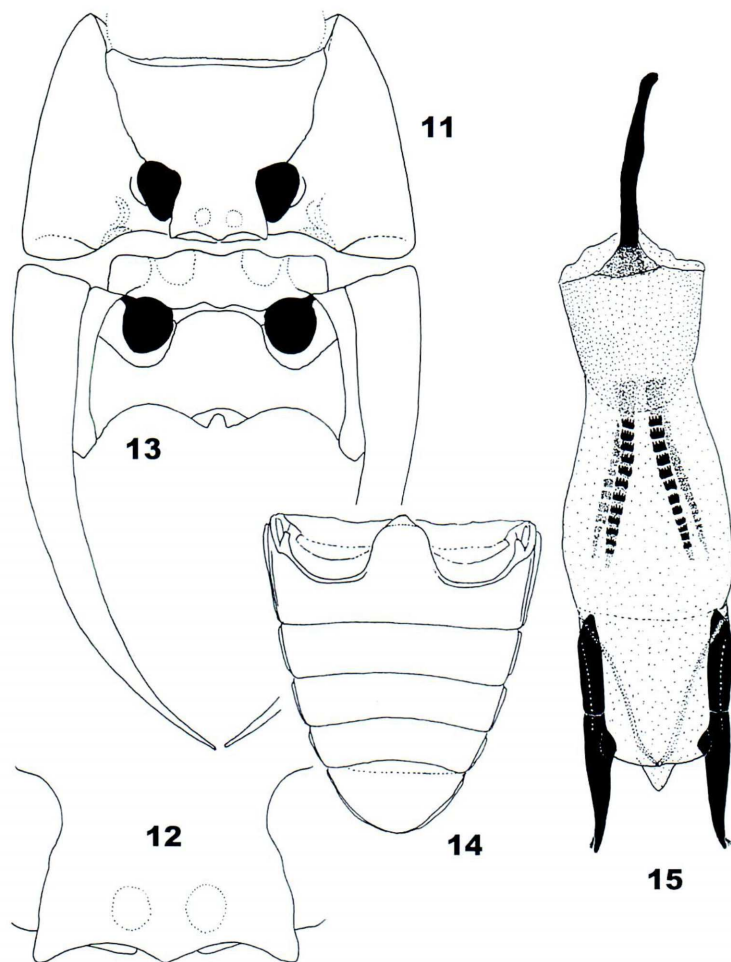
Female genitalia (Fig. 15). Sternite VIII armed with long spiculum gastrale. On genital segments are found two rows of very conspicuous denticulate lamellae; coxites undivided, pointed, sparsely pubescent, with strongly reduced styli in small depression on outer side of coxite. Spermatheca unknown.

Male unknown.

*Distribution.* New Caledonia: Mont Rembaï (Fig. 16).

***Masahiria glabra* sp. nov.**

Holotype. "New-Caledonie Mont Rembaï 19–21.I.1977 leg. Dr. J. Balogh". The



Figs. 11–15. *Masahiria glabra* sp. nov.; 11, prosternum; 12, prosternal process; 13, meso- and metasternum, and epipleura; 14, abdomen; 15, female genitalia and genital segments.

holotype is preserved in the Zoological Department of the Hungarian Natural History Museum in Budapest, Hungary.

*Name derivation.* The species epithet *glabra* derives from Latin and means hairless or smooth, referring to the hairless dorsal side of the body.

*Diagnosis.* The new species is different from all other species of the Old World Erotylidae in body shape and colouration.

*Description.* Body length 4.75 mm, width (=elytra maximum width) 2.25 mm. Body nearly oviform (Fig. 1), dorsal side distinctly convex and glossy; except for head, almost nude, hairless. Underside brownish, upperside almost wholly black; clypeus, anterior margin of pronotum, and scutellum chestnut; spots on elytra and epipleura or-



ange (Fig. 2); legs yellowish-orange; antenna somewhat darker than legs, but still lighter than other parts of body; mouthparts from chestnut (mandibles) to yellow (palpi).

Head (Figs. 3, 4) very large as compared to rest of body ( $HW/BW=0.59$ ), transverse ( $HL/HW=0.45$ ); distinctly hirsute, particularly anteriorly (Fig. 3); frons evenly convex; genae parallel-sided. Puncturation of head surface dense, punctures large (Fig. 3); microsculpture hardly visible. Labrum connected to clypeus by wide, well visible membrane. Anterior margin of clypeus straight. Fronto-clypeal suture hardly visible, but complete, straight in the middle, lateral fragments anterad. Rostrum wide, moderately short ( $RL/HL=0.46$ ). Eyes (Figs. 3, 4) small, almost oval, distinctly protruding from head outline, somewhat straightly truncate behind; with large ommatidia;  $HEW/HW=0.74$ ; eyes distinctly bordered by deep grooves, which in front reach bases of antenna, and behind continue straight backwards (Figs. 3, 4). Stridulatory files absent. Gula smooth, without visible punctures. Gena with large punctures. Submentum very short and wide, strongly transverse; groove behind submentum with large, deep punctures (Fig. 5). Mentum transverse, with median tooth and central depression (Fig. 5). Last joint of maxillary palpi elongate, somewhat narrow at apex (Fig. 6). Last joint of labial palpi wide, wider than preceding one (Fig. 7).

Antennae relatively long ( $AL/BL=0.39$ ), very slender, including club ( $CL/CW=2.19$ ) (Fig. 9); shortly, sparsely hirsute. Antennomere I much larger than following ones, bulbous, wide; II much more shorter and thinner than others; III moderately elongated, very little longer than IV ( $AL_{III}/AL_{IV}=1.08$ ); antennomeres III–VII similar to one another in size, more or less of the same length and width; antennomere VIII longer than antennomeres IV–VII, triangular in shape; antennomeres IX–XI constituting 3-jointed, narrow, feebly flattened, loose club ( $CL/AL=0.31$ ), each antennomere transverse: IX and X cup-like; XI oval, blunt at tip. Relative lengths (widths) of antennomeres as follows:— 1(1): 0.71(0.64): 1(0.64): 0.93(0.64): 1(0.64): 0.93(0.64): 0.93(0.71): 0.86(0.78): 0.93(1.43): 1(1.57): 1.43(1.5).

Pronotum strongly convex, much wider than long ( $PL/PMW=0.75$ ) (Fig. 8). Puncturation a little finer than on head, but dense; microsculpture hardly visible, surface shiny; punctures larger on central than lateral parts of pronotum. Lateral mar-

Table 1. *Masahiria glabra* (holotype) — measurements.

| Abbreviation | Measurements (in mm) | Abbreviation | Measurements (in mm) |
|--------------|----------------------|--------------|----------------------|
| BL           | 4.75                 | PBW          | 2.11                 |
| BW           | 2.25                 | PAW          | 1.48                 |
| HL           | 0.59                 | EL           | 2.55                 |
| HW           | 1.32                 | EW           | 2.25                 |
| HEW          | 0.98                 | EAW          | 2.16                 |
| RL           | 0.27                 | AL           | 1.88                 |
| PL           | 1.62                 | CL           | 0.59                 |
| PMW          | 2.16                 | CW           | 0.27                 |

gins gently arched, convergent anteriorly, so that base of pronotum is clearly wider than anterior margin ( $PBW/PAW=1.43$ ), narrowly but clearly bordered, each border with eight very small, and hardly visible gland openings. Anterior angles distinctly protruding anteriorly, acute. Anterior margin deeply emarginated just before anterior angles, otherwise slightly convex, almost straight; not bordered, lateral border reaching emargination just before anterior angles. Posterior margin of pronotum sinuate, not bordered, middle part projecting very little posterior to scutellum. Posterior angles blunt, rounded, fitting to emarginations in bases of elytra. Three small depressions near lateral emarginations and in midline.

Scutellum small, triangular (Fig. 8), brown, finely punctured, much the same as on elytra.

Elytra short ( $EL/EW=1.13$ ), strongly but evenly narrowing posteriorly, with almost regularly arched lateral margins (Fig. 1), evenly convex. Surface irregularly punctured, without trace of regular rows of punctures. Size and density of punctures similar to those on pronotum. Microsculpture indistinct, surface shining. Colouration similar to the rest of body, except that lighter, orange spots on lateral margins (near margin spots are darker, chestnut), near bases and apices of elytra are close to elytral suture (Fig. 2). Elytral bases not bordered, deeply emarginate, fitting to base of pronotum. Humeral protuberances absent. Elytral apices rounded together. Epipleura orange, wide at the bases, evenly narrowing to apices (Fig. 13), densely hirsute with short and decumbent bristles, and very densely punctured, punctures large, microsculpture between them well visible, surface dull.

Wings strongly reduced, belt-like, without trace of venation.

Legs long and slender, densely hirsute (Figs. 1, 10). Femora fusiform, somewhat flattened, with two sharp edges on the inner surface. Tibiae slender, slightly curved (mostly anterior tibiae), but evenly dilated toward apices; surface very delicate on outer, but with sharp longitudinal edges. Apex of femur with crown of flat setulae and pair of short spurs, close to one another. Tarsi elongate, cylindrical, tarsomeres I–III more or less of the same size, tarsomere IV much shorter, V the longest. Claws strong, sickle-shaped.

Underside covered by short, decumbent bristles.

Prosternum long (Fig. 11), the longest thoracic segment. Punctuation sparse in middle, punctures small, pronotal hypomeron with large and dense punctuation, near margins joining into transverse wrinkles. Anterior margin of prosternum bordered with deep furrow, with numerous, small denticles. Profemoral lines absent. Anterior margins of prosternal cavities not bordered. Prosternal process (Fig. 12) wide, strongly widened posteriorly, with sharp denticle in middle of posterior margin, and with posterior angles acute and directed to procoxae; prosternal process not bordered; two round and deep depressions near posterior margin. Pores on the prosternal process absent.

Mesososternum (Fig. 13) completely covered by prosternum, hidden, pro- and metasternum touching one another.

Metasternum (Fig. 13) short, punctured similarly to center of prosternum; ante-



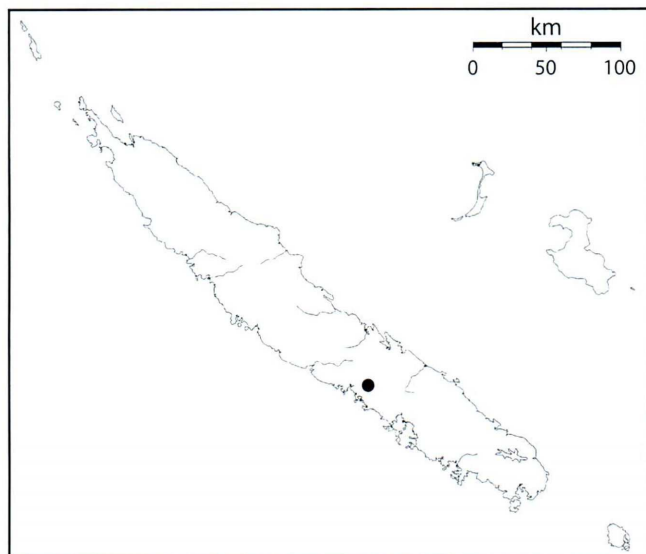


Fig. 16. *Masahiria glabra* sp. nov., distribution.

rior margin distinctly bordered; posterior margin with triangular emargination in midline. Median suture absent. Mesofemoral lines absent. Metepisterna very narrow, impunctured.

Abdomen (Fig. 14) evenly, densely punctured, punctures large; microsculpture between punctures strong, well visible, surface dull. Anterior margin of ventrite I behind metacoxae distinctly bordered, process of ventrite I between metacoxae wide and long, widely rounded at apex, unbordered. Metafemoral lines on ventrite I absent. Ventrite V somewhat acute.

Female genitalia (Fig. 15). Ovipositor as in Fig. 15. Coxites long, strongly sclerotized, sharp at apex. Spermatheca lost during preparation.

Male unknown.

*Biology.* Nothing is known about biology of this species, except that the only specimen was collected at the end of January on Mont Rembaï ( $21^{\circ}36'0''\text{S}$   $165^{\circ}50'60''\text{E}$ ).

### Acknowledgments

I am grateful to Dr. Otto MERKL (Zoological Department of the Hungarian Natural History Museum in Budapest, Hungary) for loan of the material of Erotylidae. I also would like to express my thanks to Prof. Shun-Ichi UENO and Dr. Masahiro ÔHARA for invitation for contributing to Professor Michio CHÛJÔ's memorial. I am particularly indebted to Dr. Masahiro ÔHARA (The Hokkaido University Museum, Hokkaido University, Sapporo, Japan) for his help during my visit in Sapporo. I thank Matthew H. DICK (Graduate School of Science, Hokkaido University, Sapporo, Japan)

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## 要 約

WĘGRZYNOWICZ, P.: ニューカレドニア産新属新種のオオキノコムシ科甲虫 *Masahiria glabra* について. — ニューカレドニアからは2亜科4属のオオキノコムシ科甲虫が記録されており, *Episcaphula australis* を除く全種が固有種である. ハンガリー自然史博物館動物部門に保管される未研究標本から, オオキノコムシ族 (Dacnini) に含まれる完全に無翅のニューカレドニア産のオオキノコムシ科甲虫1雌を見いだした. 本稿では, その標本に基づき, 新属新種 *Masahiria glabra* を記載した. 本属はオーストラリアー太平洋区に分布する *Thallis* に近縁であるが, 楕円の体形と中胸腹板が前胸腹板に覆われる特殊な構造から区別される. また種レベルでも, 体形と体色のパターンから, 旧世界のオオキノコムシ科の種から区別される.

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